SCREENING SITE INSPECTION REPORT
FOR
M & W LANDFILL COMPANY
ROCKDALE, ILLINOIS
U.S. EPA ID: ILD980498117
SS ID: NONE
TDD: F05-8909-043
PAN: FIL0331SA

NOVEMBER 5, 1990

976008

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SIGNATURE PAGE
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1. INTRODUCTION

Ecology and Environment, Inc., Field Investigation Team (FIT) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the M & W Landfill Company (MWL) site under contract number 68-01-7347.

The site was initially discovered when it was included in the Waste Disposal Site Survey that was presented in October 1979 to the Subcommittee on Oversight and Investigation of the Committee on Interstate and Foreign Commerce (SOICIFC) 96th Congress. This survey is more widely known as the Eckardt Report (SOICIFC 1979).

The site was evaluated in the form of a preliminary assessment (PA) that was submitted to U.S. EPA. The PA was prepared by Richard Lange of the Illinois Environmental Protection Agency (IEPA) and is dated September 14, 1984.

FIT prepared an SSI work plan for the MWL site under technical directive document (TDD) F05-8703-384, issued on March 19, 1987. The SSI work plan was approved by U.S. EPA on September 25, 1989. The SSI of the MWL site was conducted on December 5 and 6, 1989, under TDD F05-8909-043, issued on September 25, 1989.

The FIT SSI included an interview with a site representative, a reconnaissance inspection of the site, and the collection of seven soil samples and three residential well samples.

The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act].... Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.
>
> The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI. (U.S. EPA 1988)

U.S. EPA Region V has also instructed FIT to identify sites during the SSI that may require removal action to remediate an immediate human health or environmental threat.

2. SITE BACKGROUND

2.1 INTRODUCTION

This section presents information obtained from SSI work plan preparation, the site representative interview, and a reconnaissance inspection of the site.

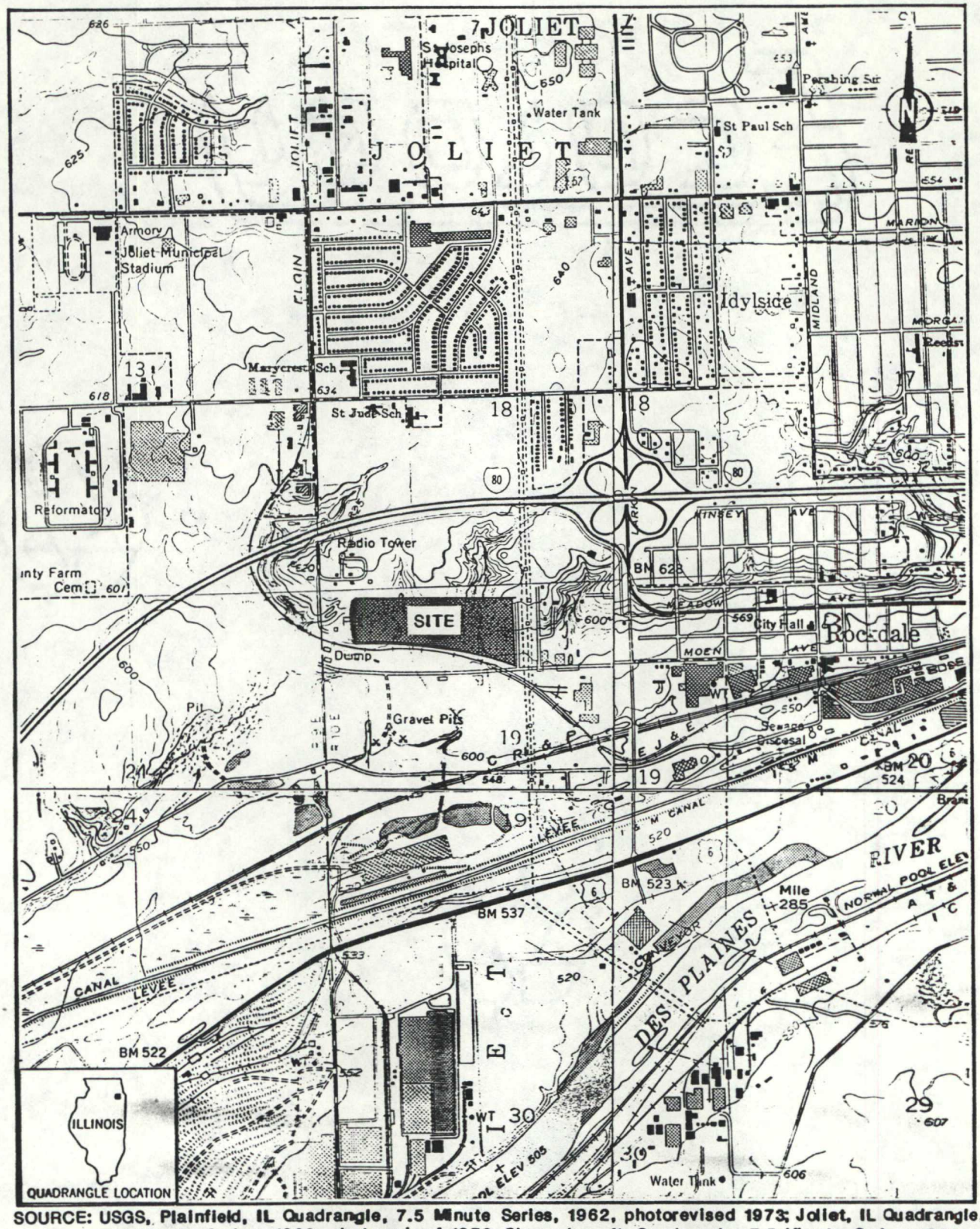
2.2 SITE DESCRIPTION

The MWL site is a parcel of land that measures approximately 33 acres. It contains an inactive asphalt paving facility and two inactive sanitary landfills (Persico 1989; Ecology and Environment, Inc. [E & E] 1980; U.S. EPA 1980). The site is located at 1999 Moen Avenue, approximately 1/4 mile west of Rockdale, Illinois, in Will County (NW1/4 sec. 19, T.35N., R.10E.) (see Figure 2-1 for site location). A 4-mile radius map of the MWL site is provided in Appendix A.

2.3 SITE HISTORY

The MWL site is currently owned by Mr. and Mrs. William B. Persico of Joliet, Illinois. The Persicos purchased the site from Bill Streepy of J. V. Development of Joliet, Illinois, as six separate parcels over a period of time from 1979 to 1984. There are no records indicating ownership or operations at the site prior to the period of Streepy's ownership (Persico 1989).

Persico operated an asphalt paving company on the eastern section of the site from shortly after his purchase of the initial parcel of land in 1979 until 1989 (Persico 1989). In spring 1980, Persico constructed an office building on the southern portion of the initial



SOURCE: USGS, Plainfield, IL Quadrangle, 7.5 Minute Series, 1962, photorevised 1973; Joliet, IL Quadrangle, 7.5 Minute Series, 1962, photorevised 1973; Channahon, IL Quadrangle, 7.5 Minute Series, 1954, photorevised 1973; Elwood, IL Quadrangle, 7.5 Minute Series, 1953, photorevised 1973.

SCALE

0 ½ 1 MILE

FIGURE 2-1 SITE LOCATION

parcel (Persico 1989; E & E 1980). During the period that the asphalt paving company operated at the site, it appears that Persico used most of the site as a storage yard for the paving company's equipment and materials (U.S. EPA 1980).

Prior to its acquisition by the Persicos, the site was leased from Streepy by M & W Disposal Company, Inc. (MWDC), owned by Melvin Watson. MWDC leased the site from approximately 1974, when MWDC received sanitary landfill operating permit number 1974-21-OP from IEPA, until the Persicos' purchase of the initial parcel of land in December 1979 (IEPA 1980; IEPA 1981). Two sanitary landfills, designated by MWDC as M & W #2 and M & W #3, were operated on-site (U.S. EPA 1980; E & E 1980).

M & W #2 was located on the northeastern portion of the site and was approximately 3 acres in size (E & E 1980). Records are not available indicating when operation of this landfill was first begun, but it was closed in July 1976 (U.S. EPA 1984).

The other sanitary landfill, M & W #3, was located on the western end of the site and was approximately 7 acres in size. This landfill was in operation from September 1974 until December 1979 (Tieman 1980; U.S. EPA 1984). Final closure of this landfill was not completed until May 1982 because MWDC personnel were unable to obtain access from Persico to the site to add final cover and seeding to the area (Tieman 1980, U.S. EPA 1984).

No records are available indicating the types or quantities of wastes that were disposed of in the two sanitary landfills, although it is assumed by U.S. EPA and IEPA officials that only municipal wastes were deposited. Lime sludge and asbestos are also alleged to have been deposited on-site (U.S. EPA 1980).

Three monitoring wells were installed on-site during sanitary landfilling operations (IEPA 1978). Records are not available indicating who installed the wells, the locations of the wells, or the dates of installation (Persico 1989). Analytical data for these wells, however, is available from as early as September 1978 (IEPA 1978a). Two of these wells were reported as being destroyed in September 1978, and the last recorded sampling of the remaining well was October 1982 (IEPA 1978a,

1982). FIT did not observe this well during the SSI and Persico did not know what happened to the well (Persico 1980).

In April 1980, IEPA officials inspected the two landfills at the site and notified Persico of regulatory problems concerning the landfills. The inspection revealed that M & W #2 appeared to have been re-excavated, and refuse was observed to be uncovered. Although the excavation was not considered illegal by IEPA, Persico, as the owner of the site, was directed either to cover the exposed refuse with at least 2 feet of compacted clay or to dispose of the refuse in an IEPA-approved landfill. The inspection also revealed that M & W #3 had not been properly closed and had not been covered to specifications as directed by IEPA. Persico was directed to fill in all erosion ruts and to seed the entire M & W #3 area to stabilize the slopes and prevent further erosion (IEPA 1980a).

In September 1981, IEPA officials observed an area of exposed refuse measuring approximately 1,000 square yards along the southwest edge of M & W #2. IEPA officials once again directed Persico to cover the refuse or dispose of it (IEPA 1981a). Final cover of M & W #3 was completed at the request of IEPA in May 1982 (U.S. EPA 1984).

Other regulatory problems concerning the former sanitary landfills at the site were noncompliance with the quarterly sampling of the monitoring well, as required in the operating permit. No sampling results were reported for any of the four testing periods in 1980, or for the first testing date in 1981 (IEPA 1981a). IEPA sent letters to both MWDC (Tieman 1980) and to Persico (IEPA 1981a) indicating that reports had not been filed for those testing dates. MWDC informed IEPA that since Persico's purchase of the site, they no longer had access to the well (Tieman 1980). The well was sampled quarterly during 1982 by IEPA officials (IEPA 1982).

The only other regulatory actions at the site concerned an oil spill near an on-site tank storage area in April 1985. The area contained approximately five aboveground storage tanks used in the asphalt production operation at the site. In April 1985, during an IEPA site inspection, a fresh oil spill of unknown quantity was observed, as well as evidence of past oil spills. Persico indicated that the tanks were not in use at the time of the IEPA inspection and that vandals must have

opened the valve, allowing the liquid to spill out (IEPA 1985). Following this inspection, Persico was advised to clean up the spill. A second inspection in May 1985 revealed that the spill area had not been properly cleaned up. A soil sample was collected from the area during this IEPA inspection and was screened for polychlorinated biphenyls (PCBs). No elevated levels of PCBs were detected (IEPA 1985a).

No recent federal, state, or local enforcement actions have been initiated against the site.

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SSI of the MWL site. Individual subsections address the site representative interview, reconnaissance inspection, and sampling procedures. Rationales for specific FIT activities are also provided. The SSI was conducted in accordance with the U.S. EPA-approved work plan, with the exception that all soil samples were collected near M & W #3. The work plan had originally called for sampling near M & W #2, but Persico's excavation made it impossible to ascertain the boundaries of the former landfill. Subsequent covering of the area with asphalt and asphalt manufacturing materials and equipment further complicated FIT's efforts to identify the former landfill area, as well as adding potential contaminants to the site. Samples were not collected on-site from the ditch, because M & W #2's boundaries could not be determined. Monitoring wells were not sampled because they no longer existed.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the MWL site is provided in Appendix B.

3.2 SITE REPRESENTATIVE INTERVIEW

Ted Nehrkorn, FIT team leader, conducted an interview with William B. Persico, owner of the MWL site, on December 5, 1989, at 9:15 a.m. The interview took place in Persico's office on-site. Also present at the interview was Jeffrey Dickson of FIT. The interview was conducted to gather information that would aid FIT in conducting SSI activities.

3.3. RECONNAISSANCE INSPECTION

Following the site representative interview, FIT conducted a reconnaissance inspection of the MWL site and surrounding area in accordance with E & E health and safety guidelines. The reconnaissance inspection was begun at 10:35 a.m. and included a walk-through of the site to determine appropriate health and safety requirements for conducting on-site activities and to make observations to aid in characterizing the site. FIT also determined sampling locations during the reconnaissance inspection. FIT was not accompanied by the site representative during the reconnaissance inspection.

Reconnaissance Inspection Observations. The MWL site is a rectangular parcel of land located in a rural area approximately 1/4 mile west of the city of Rockdale, Illinois. The surrounding area is dominated by small businesses and private residences. The site is bordered by commercial property to the west and east, a wooded area and agricultural land to the north, and a line of Elgin, Joliet, and Eastern Railroad to the south (see Figure 3-1 for site features). The terrain of the area is relatively flat, with a general slope of approximately 3 to 5% to the south-southeast toward the Des Plaines River.

Structures from the former asphalt paving company are located in the southeast corner of the site. The structures consist of an office building, a parking lot, and an asphalt manufacturing facility. A paved access road runs north-south along the eastern border of the site just east of the office building.

An unpaved access road runs from the paved access road west to M & W #3. This dirt road runs immediately north of the asphalt paving company office building and immediately south of the asphalt manufacturing facility. A locked access gate is located at the entrance of the paving company near the office building. A fence runs between the office and the locked gate.

A ditch runs north-south across the site, turning to the west at the southern boundary. The ditch then runs parallel to the railroad tracks on the southern border of the site, to a low area near a culvert in the southwest corner of the site. The culvert leads off-site beneath the railroad tracks. A second ditch intersects the first ditch

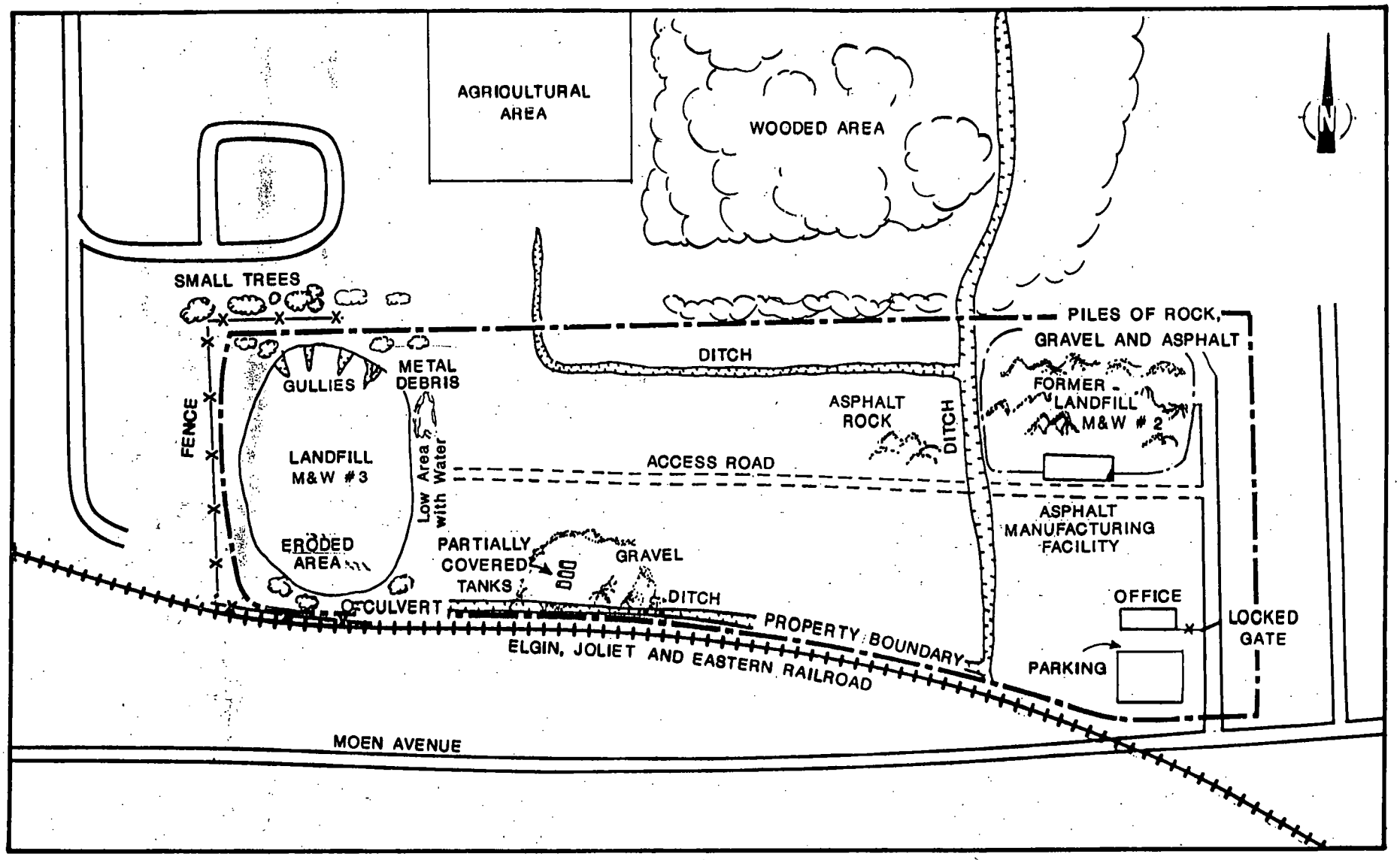


FIGURE 3-1 SITE FEATURES

immediately west of M & W #2 and runs parallel to the northern border of the site in a westerly direction. Between the midpoint of the site and M & W #3 the ditch turns north, leading off-site.

Former sanitary landfill M & W #2 is located in the northeast corner of the site. The asphalt manufacturing facility is located near what is believed to have been the southern end of landfill M & W #2; however, the exact borders of the landfill were not identifiable. The area north of the asphalt manufacturing facility, formerly occupied by M & W #2, was completely covered with asphalt; piles of materials used in the asphalt production process, including gravel, rock, and slabs of old pavement; and discarded pieces of equipment used in the paving business. Some asphalt rock was piled west of the north-south ditch in this area of the site. The area was relatively level, with a slight slope (approximately 3%) toward the north-south ditch to the west.

The other former sanitary landfill, M & W #3, is located on the western portion of the site. This landfill is a mound approximately 60 feet high, with a slope of approximately 15% on all sides. The landfill is predominantly covered with clay-rich soil containing small rocks. Vegetation, including grass and brush, covers the majority of M & W #3. A number of gullies were observed on the surface of the landfill. Many contained stained soil, indicating potential leachate seeps. The majority of the eroded areas were observed on the north and south slopes of the mound.

The low area containing the culvert is located at the base of the south side of M & W #3. This area of the site appears to be the area lowest in elevation and therefore the primary point for off-site migration of substances via an overland pathway. Low lying areas were also observed along the east and west sides of M & W #3; standing water was observed on the east side. Old rusty drums and other metals debris were observed along the east side of M & W #3.

The central portion of the site is predominantly covered with grass and small bushes. Numerous piles of gravel, bricks, and rock were observed throughout this portion of the site, as well as miscellaneous paving equipment and vehicles. Three discarded tanks, partially covered in a pile of gravel, were observed just east of M & W #3 along the southern border of the site.

The only fence observed on-site was along the western border and the northwest and southwest corners of the site. The only other means of limiting access to the site was the entrance gate near the office building, which was locked when no one was on-site.

Photographs of the MWL site are provided in Appendix C.

3.4 SAMPLING PROCEDURES

Samples were collected by FIT at locations selected during the reconnaissance inspection to determine whether U.S. EPA Target Compound List (TCL) compounds or Target Analyte List (TAL) analytes were present at the site. The TCL and TAL are included with corresponding quantitation/detection limits in Appendix D.

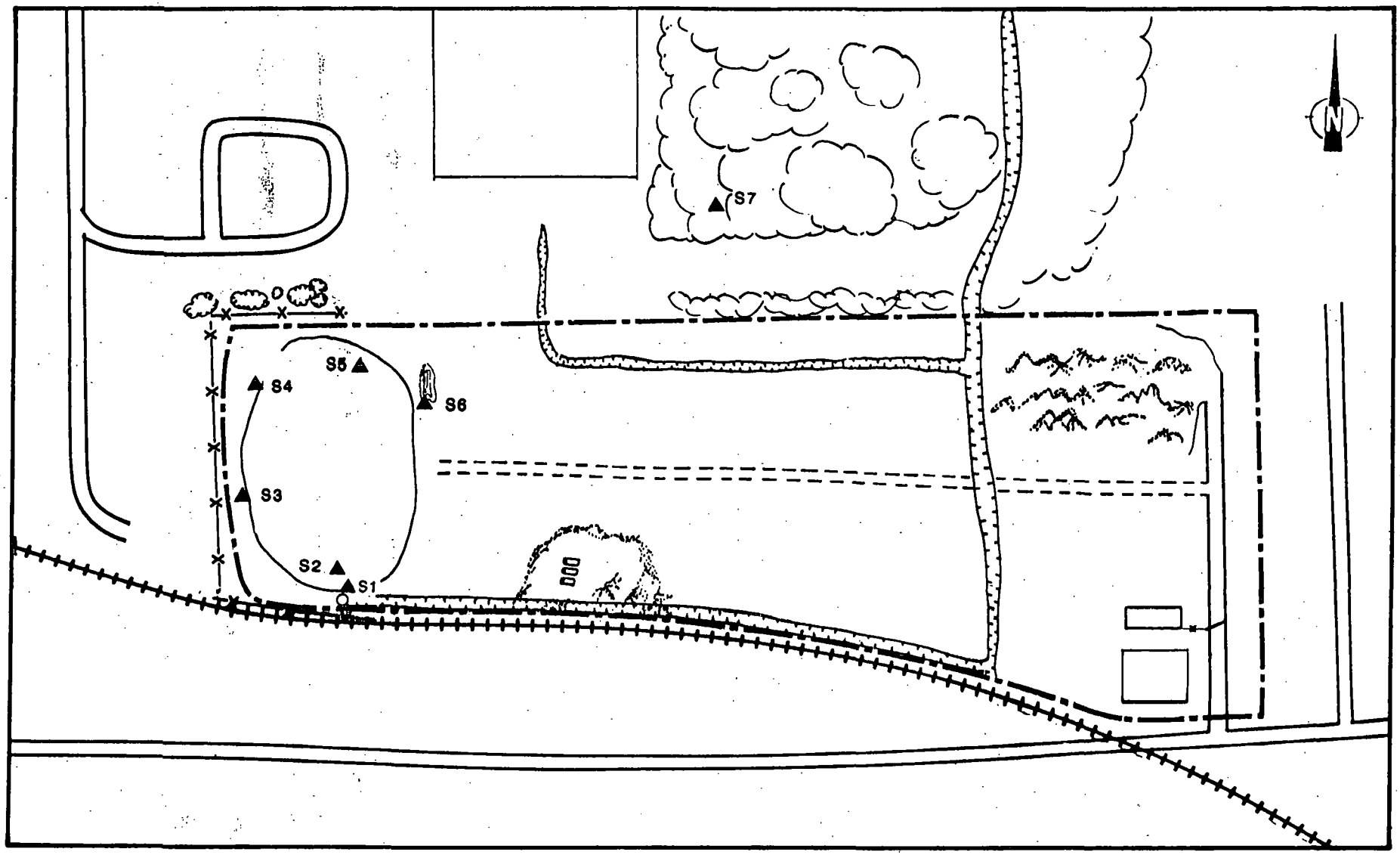
On December 5, 1989, FIT collected six soil samples and one potential background soil sample. Portions of the on-site soil samples were offered to the site representative, but were declined. On December 6, 1989, FIT collected samples from three residential wells in the vicinity of the site.

Soil Sampling Procedures. All soil samples were grab samples collected from the surface at a depth of approximately 12 inches. All on-site soil sampling locations were near M & W #3 and were selected to determine whether TCL compounds or TAL analytes were present.

Soil sample S1 was collected from an area of stained soil in the low area near the culvert (see Figure 3-2 for soil sampling locations). This location was selected because it appeared to be the lowest point on-site and therefore a potential pathway for off-site migration of contaminants. Soil sample S2 was collected from an area of stained soil from the top of the south side of the landfill.

Soil samples S3 and S4 were collected on the west side of the landfill, from the south and north ends, respectively. These sampling locations were selected because of the potential for leachate to have migrated from the top of the landfill to the base of the landfill.

Soil sample S5 was collected from an area of stained soil in a gully on the north side of the landfill. Soil sample S6 was collected from the low area containing standing water on the east side of the landfill.



SCALE

0 200 400 600 800 1,000 FEET

FIGURE 3-2 SOIL SAMPLING LOCATIONS

Soil sample S7, the potential background sample, was collected off-site from a wooded area approximately 1,000 feet northwest of M & W #3. This sample was collected to determine the representative chemical content of the soil in the area surrounding the site. The sampling location was selected because it appeared to be in a relatively undisturbed area.

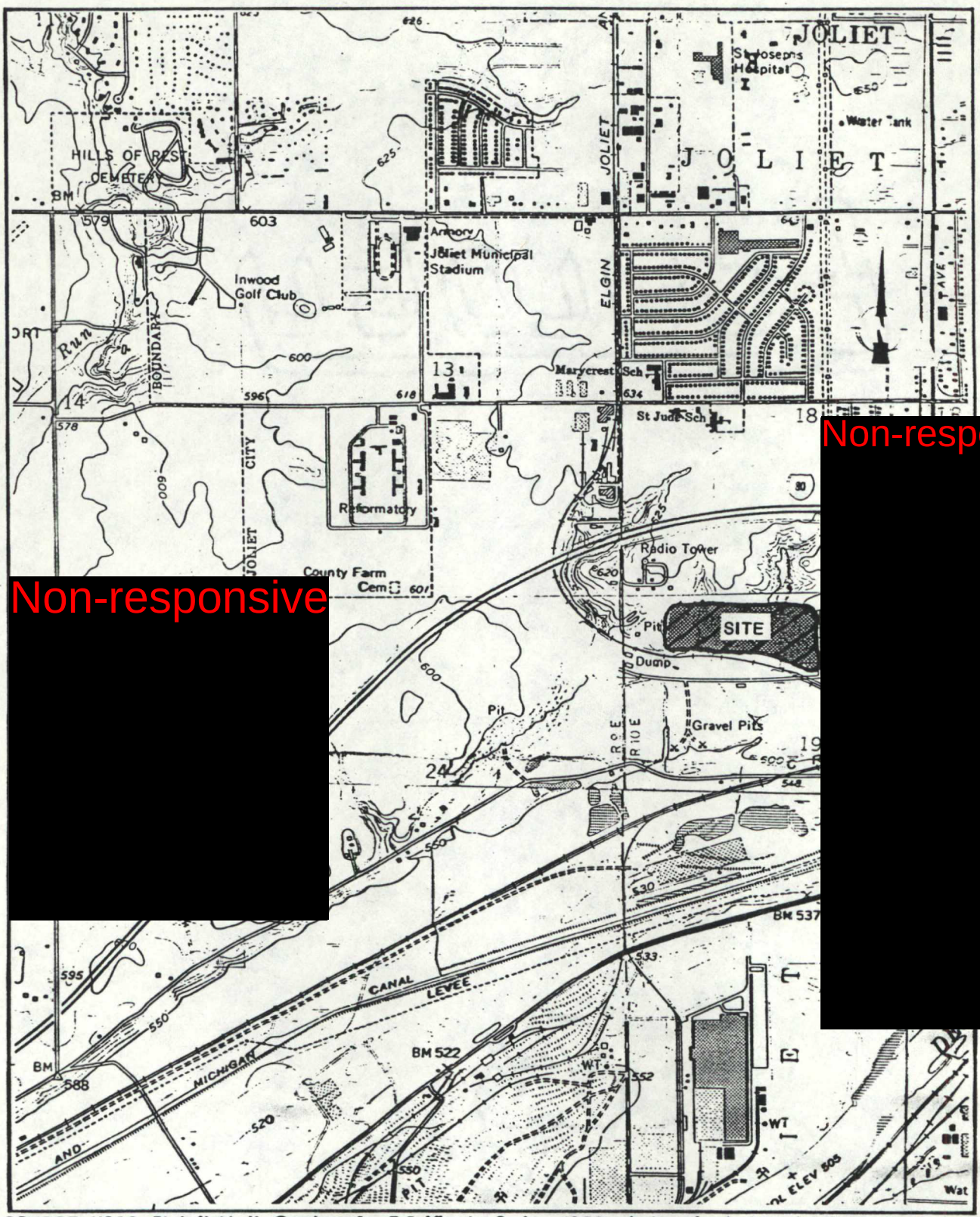
All of the soil samples were collected using a hand trowel to obtain soil from the appropriate depth. Each sample was transferred directly to the sample bottles using the hand trowel (E & E 1987).

Standard E & E decontamination procedures were adhered to during the collection of all soil samples. The procedures included the scrubbing of all equipment (e.g., trowels) with a solution of detergent (Alconox) and distilled water, and triple-rinsing the equipment with distilled water before the collection of each sample (E & E 1987). All soil samples were packaged and shipped in accordance with U.S. EPA-required procedures.

As directed by U.S. EPA, all soil samples were analyzed using the U.S. EPA Contract Laboratory Program (CLP) for TCL compounds by Anametrix, Inc., of San Jose, California, and for TAL analytes by York Laboratories, of Monroe, Connecticut.

Residential Well Sampling Procedures. Residential well samples (designated as RW1, RW2, and RW3) were collected to determine whether TCL compounds or TAL analytes had migrated from the site to groundwater in the vicinity of the site. The residential well sampling locations were selected because of their availability and proximity to the site.

Sample RW1 was collected from a Non-responsive [redacted]. Sample RW2 was collected from a residence Non-responsive [redacted]. Residential wells RW1 and RW2 were believed to be downgradient from the site, on the basis of surface topography of the area of the site. Sample RW3, the potential Non-responsive [redacted] Residential well RW3 was considered to be upgradient from the site, also on the basis of surface topography (United States Geological Survey [USGS] 1962, 1962a).



SOURCE: USGS, Plainfield, IL Quadrangle, 7.5 Minute Series, 1962, photorevised 1973; Joleit, IL Quadrangle, 7.5 Minute Series, 1962, photorevised 1973; Channahon, IL Quadrangle, 7.5 Minute Series, 1954, photorevised 1973; Elwood, IL Quadrangle, 7.5 Minute Series, 1953, photorevised 1973.

SCALE
0 ½ 1 MILE

FIGURE 3-3 RESIDENTIAL WELL SAMPLING LOCATIONS

All residential well samples were obtained from outlets that bypassed water treatment systems and storage tanks. Water was allowed to discharge from the outlets for 15 minutes before samples were collected to ensure that the sample sources had been purged of standing water (E & E 1987). In accordance with U.S. EPA quality assurance/quality control (QA/QC) requirements, a duplicate residential well sample and a field blank sample were collected. The field blank sample was prepared from distilled water. The duplicate sample was collected at location RW1 (see Table 3-1 for addresses of residential well sampling locations).

As directed by U.S. EPA, all residential well samples were analyzed using the U.S. EPA CLP for TCL compounds by ChemWest Analytical Laboratories of Sacramento, California, and for TAL analytes by Centec Laboratories of Salem, Virginia.

Table 3-1

ADDRESSES OF RESIDENTIAL WELL SAMPLING LOCATIONS

Sample	Address
RW1 (Duplicate)	Non-responsive
RW2	
RW3	

4. ANALYTICAL RESULTS

4.1 INTRODUCTION

This section presents results of the chemical analysis of FIT-collected soil samples and residential well samples for TCL compounds and TAL analytes.

4.2 RESULTS OF CHEMICAL ANALYSIS OF FIT-COLLECTED SAMPLES

Soil Samples. Chemical analysis of FIT-collected soil samples revealed substances from the following groups of TCL compounds and TAL analytes: PCBs, heavy metals, metals, common laboratory artifacts, and common soil constituents (see Table 4-1 for complete chemical analysis results of FIT-collected soil samples).

Residential Well Samples. Chemical analysis of FIT-collected residential well samples revealed substances from the following groups of TAL analytes: heavy metals, metals, and groundwater constituents common to the area of the site (see Table 4-2 for complete chemical analysis results of FIT-collected residential well samples).

Quantitation/detection limits used in the analysis of soil and residential well samples are provided in Appendix D.

The analytical data for the chemical analysis of soil and residential well samples collected for this SSI have been reviewed by U.S. EPA and FIT for compliance with terms of FIT contract, and the review has been approved by U.S. EPA. Any additions, deletions, or changes to the data have been incorporated in the chemical analysis results tables presented in this section.

Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED SOIL SAMPLES

Sample Collection Information and Parameters	Sample Number S1	S2	S3	S4	S5	S6	S7
Date	12/5/89	12/5/89	12/5/89	12/5/89	12/5/89	12/5/89	12/5/89
Time	1300	1245	1225	1355	1340	1445	1410
CLP Organic Traffic Report Number	EJB25	EJB26	EJB27	EJB28	EJB29	EJB30	EJB31
CLP Inorganic Traffic Report Number	MEHQ76	MEHQ77	MEHQ78	MEHQ79	MEHQ80	MEHQ81	MEHQ82
Compound Detected (values in µg/kg)							
Volatile Organics							
toluene	—	7	—	—	—	—	—
Semivolatile Organics							
bis(2-ethylhexyl)phthalate	—	520J	—	—	—	—	—
Pesticides/PCBs							
Aroclor 1248	—	270	—	—	—	—	—
Analyte Detected (values in mg/kg)							
aluminum	12,700	1,960	8,610	8,790	11,100	8,210	7,850
antimony	4.2JNB	—	6.3JNB	6.1JNB	7.6JNB	3.8JNB	—
arsenic	10.9	5.8	7.6	9.3	9.9	6.5	6.2
barium	104	48.1	47.3	52.7	50.9	47.6B	104
beryllium	0.68B	0.72B	0.59B	0.72B	0.97B	0.54B	0.83B
cadmium	—	—	—	—	1.3JN	—	—
calcium	24,200J*	34,300J*	69,500J*	61,700J*	57,800J*	70,100J*	5,280J*
chromium	22.6	35.7	15.5	14.4	19.6	15.8	13.6

Table 4-1 (Cont.)

Sample Collection Information and Parameters	Sample Number S1	S2	S3	S4	S5	S6	S7
Analyte Detected (values in mg/kg)							
cobalt	13.1	17.8	15.9	9.7B	9.8B	12B	11.6B
copper	29.1	36.3	22.9	21.7	24	19.3	14.3
iron	27,700	72,300	19,500	18,600	22,800	18,500	14,100
lead	23.8J*	63.1J*	20.8J*	15.8J*	12.7J*	15.5J*	42.2J*
magnesium	13,200J*	1,010J*B	34,900J*	32,300J*	29,400J*	34,400J*	2,790J*
manganese	482JN	84.5JN	686JN	577JN	404JN	490JN	789JN
nickel	32.6	35.6	39.6	27.3	31.2	30.4	14
potassium	2,410	1,320	2,010	1,630	2,490	2,080	1,340
selenium	—	—	—	—	—	—	0.49B
sodium	232JB	3,110	2,970	205JB	266JB	306JB	139JB
thallium	—	—	0.40JWB	0.47JWB	0.53JWB	—	—
vanadium	25.7	4.7B	19.5	19.8	24.3	21.5	17.7
zinc	100J*	11.8J*	46.7J*	52.1J*	2,210J*	60.8J*	89.4J*

— Not detected.

Table 4-1 (Cont.)

COMPOUND QUALIFIER	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semi-quantitative.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
W	Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.

Table 4-2
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED RESIDENTIAL WELL SAMPLES

Sample Collection Information and Parameters	Sample Number RW1	Duplicate	RW2	RW3	Blank
Date	12/6/89	12/6/89	12/6/89	12/6/89	12/6/89
Time	1000	1000	1030	1110	1000
CLP Organic Traffic Report Number	EJB32	EJB33	EJB34	EJB35	EJB36
CLP Inorganic Traffic Report Number	MEHQ83	MEHQ84	MEHQ85	MEHQ86	MEHQ87
Temperature (°C)	4	4	1	0	3
Specific Conductivity (μmhos/cm)	800	800	900	600	5
pH	7.0	7.0	6.77	6.8	9.0
Analyte Detected (values in μg/L)					
barium	48.4B	48.2B	98.3	95.8	—
cadmium	—	—	—	0.32B	—
calcium	105,000	104,000	132,000	95,000	—
chromium	—	—	—	15.8	—
copper	16.5	22.4	—	25.9	7.6B
iron	103	107	1,080	194	—
magnesium	53,200	52,800	65,800	47,300	—
manganese	33.2	33.1	42.5	14	—
nickel	13.6B	—	26.1	13.9B	—
potassium	2,290	2,250	3,130	2,600	—
sodium	29,400	29,000	36,700	13,000	—
zinc	74.3	47.7	9.0B	328	14.7B

— Not detected.

Table 4-2 (Cont.)

ANALYTE QUALIFIER	DEFINITION	INTERPRETATION
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.

5. DISCUSSION OF MIGRATION OF PATHWAYS

5.1 INTRODUCTION

This section presents discussions of data and information pertaining to potential migration pathways and targets of TCL compounds and TAL analytes that are possibly attributable to the MWL site.

The five migration pathways of concern discussed are groundwater, surface water, air, fire and explosion, and direct contact.

5.2 GROUNDWATER

Chemical analysis of FIT-collected samples from residential wells Non-responsive [redacted] he MWL site revealed the presence of TAL analytes. The substances do not appear to be attributable to the site, however, because the concentrations at which they were detected in the downgradient samples were similar to those in the upgradient sample, RW3.

TCL compounds and TAL analytes were detected in on-site soil samples. However, the concentrations in the samples collected at the site were similar to those of the background sample, S7.

A potential exists for TCL compounds and TAL analytes to migrate to groundwater in the vicinity of the site. A number of on-site factors exist that increase the potential for migration, including the following.

- No natural or constructed barriers (e.g., a liner) exist between the deposited waste and the highly permeable

glacial drift that is a primary water-bearing unit for the majority of private residences in the area.

- One of the landfills, M & W #3, did not receive final cover until two years after it had been closed.

- A number of eroded areas containing stained soil, indicative of leachate seeps, were observed on M & W #3.

- The integrity of the final cover of M & W #2 may have been violated when the landfill was re-excavated, exposing refuse.

The potential for migration is also based on a review of area well logs and geologic literature regarding the area surrounding the MWL site that indicates the presence of three major underground water-bearing units (well logs are provided in Appendix E). The three aquifers, in descending order, are a sand and gravel Quaternary drift deposit, a Silurian dolomite bedrock formation, and the Cambrian-Ordivician aquifer system, a sequence of hydraulically connected dolomite and sandstone formations of Ordivician and Cambrian age units (Woller and Sanderson 1983).

The Quaternary drift aquifer and the Silurian dolomite bedrock aquifer appear to be hydraulically connected and together form the aquifer of concern (AOC). The Maquoketa shale formation, a known aquitard, lies between the AOC and the lower Cambrian-Ordivician aquifer system (Woller and Sanderson 1983).

The Quaternary drift deposit ranges in thickness from 5 to 100 feet, and is composed of interbedded till units, lacustrine clay deposits, and water-bearing sand and gravel units. The Silurian dolomite bedrock formation varies in thickness from 0 to 250 feet. The Maquoketa shale formation varies in thickness from 5 to 100 feet. The Cambrian-Ordivician aquifer system is found at depths ranging from 250 feet to over 1,000 feet (Woller and Sanderson 1983).

The depth to groundwater in the vicinity of the site ranges from 15 to 50 feet (Woller and Sanderson 1983). The general flow of local

groundwater appears to follow the surficial topography to the south-southeast toward the Des Plaines River (USGS 1962, 1962a).

The majority of the private residential wells Non-responsive draw from the AOC, at depths ranging from 30 to 85 feet (Appendix E). The city of Rockdale operates three municipal wells Non-responsive, with two of these wells drawing from the AOC (Duffield 1988, 1988a). The only other wells located within Non-responsive are those operated by the city of Joliet. The Joliet wells draw from the confined Cambrian-Ordivician aquifer system, which is not part of the AOC (Woller and Sanderson 1983; Duffield 1988, 1988a). The closest well to the MWL site drawing from the AOC is a private residential well Non-responsive (USGS 1962, 1962a).

The target population within a 3-mile radius of the site potentially affected by a release of TCL compounds and TAL analytes to the AOC include approximately 4,960 persons. This population figure includes the approximately 1,400 people served by Rockdale Municipal Water System. The population also includes the approximately 3,560 persons using private wells Non-responsive. This figure was calculated by using USGS topographic maps of the area, which indicate that approximately 1,160 homes are located within a 3-mile radius of the site (USGS 1953, 1954, 1962, 1962a). This number was then multiplied by a persons-per-household figure of 3.07 for Will County (U.S. Bureau of the Census 1982).

5.3 SURFACE WATER

Surface water samples were not collected at the MWL site because no potential overland migration pathway leading from the site was observed prior to the SSI (USGS 1962, 1962a).

The surface water body nearest to the site is the Illinois & Michigan (I & M) canal, approximately 1 mile southeast of the site (USGS 1962, 1962a). There is a potential overland water migration pathway leaving the site via the culvert in the southwest corner of the site. However, there does not appear to be an available pathway leading to the canal because the intervening terrain includes roads and railroad lines (USGS 1962, 1962a).

Surface water is not used as a source of drinking water in the vicinity of the site (Duffield 1988, 1988a).

5.4 AIR

A release of TCL compounds or TAL analytes to the air was not documented during the SSI of the MWL site. During the reconnaissance inspection, FIT site-entry instruments (OVA 128, colorimetric tubes for monitoring hydrogen cyanide, oxygen meter, explosimeter, and radiation monitor) detected only methane gas at levels above background concentrations at the site. In accordance with U.S. EPA-approved work plan, further air monitoring was not conducted by FIT.

A low potential exists for TCL compounds and TAL analytes to migrate from the site via windblown particulates because vegetation does not cover the entire site. The target population within a 4-mile radius of the site is approximately 62,000 persons. This population was calculated in the same manner described in Subsection 5.2.

5.5 FIRE AND EXPLOSION

According to federal, state, and local file information reviewed by FIT, and an interview with the site representative, no documentation exists of an incident of fire or explosion at the site. According to FIT observations and site-entry equipment readings, no potential for fire or explosion existed at the site at the time of the SSI.

5.6 DIRECT CONTACT

According to federal, state, and local file information reviewed by FIT, observations made during the SSI, and the interview with the site representative, no incidents of direct contact with TCL compounds or TAL analytes at the MWL site have been documented.

A low potential does exist for the public to come into direct contact with TCL compounds or TAL analytes detected in on-site soil samples because the entire perimeter of the site is not fenced. The locked gate restricts only vehicular access to the site.

The target population potentially affected by direct contact includes the approximately 700 persons residing within a 1-mile radius

of the site. The target population was calculated in the same manner described in Subsection 5.2.

Because the asphalt paving company is no longer in operation, there are no workers on-site to be affected by direct contact with TCL compounds or TAL analytes detected on-site.

6. REFERENCES

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APPENDIX A

SITE 4-MILE RADIUS MAP

CREST HILL MUNICIPAL WATER BOUNDARY

JOLIET MUNICIPAL WATER BOUNDARY

ROCKDALE MUNICIPAL WATER BOUNDARY

JOLIET MUNICIPAL WELL # 1D

JOLIET MUNICIPAL WELL # 2D

JOLIET MUNICIPAL WELL # 3D

JOLIET MUNICIPAL WELL # 9D

ROCKDALE MUNICIPAL WELLS

WELL LOG # 1

WELL LOG # 2

WELL LOG # 3

WELL LOG # 4

WELL LOG # 5

SITE

1 MILE

2 MILE

3 MILE

4 MILE

OUTLINE OF SLUDGE FARM TEST AREA

AMOCO CHEMICALS CORPORATION

Ranges got cut off.

T. 36 N.

T. 35 N.

T. 35

T. 34

R. 9 E.

R. 10 E.

ecology and environment, inc.		SITE NAME: M&W LANFILL CO.
		U.S. EPA ID#: ILD980498117

USGS TOPOGRAPHIC MAPS:

NAME: PLAINFIELD, IL		NAME: JOLIET, IL	
DATE: 1962		DATE: 1962	
REVISED: 1973		REVISED: 1973	
NAME: CHANNAHON, IL		NAME: ELWOOD, IL	
DATE: 1954		DATE: 1953	
REVISED: 1973		REVISED: 1973	

SCALE: 0 ½ 1 MILE

ILLINOIS

QUADRANGLE LOCATION

APPENDIX B

U.S. EPA FORM 2070-13

Site Inspection Report

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

EPA

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: D980498117

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
M&W Landfill Company	1999 Moen Avenue				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Rockdale	IL	60434	Will	197	17

09 COORDINATES LATITUDE 41° 30' 20".N | LONGITUDE 088° 07' 40".W

10 TYPE OF OWNERSHIP (Check one)
■ A. PRIVATE ☐ B. FEDERAL _____ ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER _____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
12 15 89 (MONTH DAY YEAR)	☐ ACTIVE ■ INACTIVE	Prior to 1974 (BEGINNING YEAR) | 1979 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ■ B. EPA CONTRACTOR Ecology and Environment (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☐ E. STATE ☐ F. STATE CONTRACTOR _____ (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Ted NehrKorn	Environmental Engineer	E&E	(312) 663-9415
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
Jeffrey Dickson	Geologist	E&E	(312) 663-9415
Tim Mayers	Geographer	E&E	(312) 663-9415
Karen Spangler	Environmental Engineer	E&E	(312) 663-9415
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
William B. Persico	Owner	2111 Moen Ave.	(815) 744-1318
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
■ PERMISSION ☐ WARRANT	1030	Partly Sunny, mid 40's

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Tom Crause	IEPA, Land Pollution Control	(217) 782-9848

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Ted NehrKorn	FIT	E&E	(312) 663-9415	4 24 90 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	D980498117

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [x] A. SOLID
- [ ] B. POWDER, FINES
- [x] C. SLUDGE
- [ ] D. OTHER (Specify)
- [ ] E. SLURRY
- [ ] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS: Unknown
CUBIC YARDS: Unknown
NO. OF DRUMS: None

03 WASTE CHARACTERISTICS (Check all that apply)

- [x] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [x] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
(SLU)	SLUDGE	Unknown		
OLW	OILY WASTE			See Site History
SOL	SOLVENTS			Subsection 2.3 in
PSD	PESTICIDES			Narrative.
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
(MES)	HEAVY METALS	Unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	For specific Hazardous				
	substances found, please				
	refer to Table 4-1,				
	Chemical Analysis of				
	Soil Samples Summary				
	sheet.				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	N/A		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E & E - Chicago, Region V

EPA FORM 2070-13(7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	D980498117

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~4960 — 04 NARRATIVE DESCRIPTION:

See Section 5.2 of Narrative

01 ☐ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

See Section 5.3 of Narrative

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

See Section 5.4 of Narrative

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

See Section 5.5 of Narrative

01 ☒ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~700 — 04 NARRATIVE DESCRIPTION

See Section 5.6 of Narrative

01 ☒ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: ~33 (Acres) — 04 NARRATIVE DESCRIPTION

See Table 4-1 for Analytical Summary

01 ☒ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~4960 — 04 NARRATIVE DESCRIPTION

See Section 5.2 of Narrative

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

See Section 5.6 of Narrative

01 ☒ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~4960 — 04 NARRATIVE DESCRIPTION

See Section 5 of Narrative

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: 0980498117

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
A potential exists for plant life to become affected by the intake of TCL compounds or TAL analytes through their root systems.

01 ☒ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include names of species)
A potential exists for animal life in the area to be affected by TCL compounds or TAL analytes detected on site.

01 ☒ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
A potential exists for food chain to be contaminated if affected flora or fauna is consumed.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 12/15/89) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~33
04 NARRATIVE DESCRIPTION
Leachate seeps were observed on site.

01 ☒ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
A culvert leading off site is located in a low area South of one of the landfills, m&w #3.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None observed During SSI or Reported

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None Reported or Observed

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
None Observed.

III. TOTAL POPULATION POTENTIALLY AFFECTED: ~4,960

IV. COMMENTS
This information was obtained from the site inspection, from an interview with the site owner, and from state and federal file information. An alleged re-excavation of m&w #2 occured in 1980.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
E&E - Chicago, Region V

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	D980498117

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☒ G. STATE (Specify) Landfill	1974-21-OP	8/5/74	N.A.	Enacd 12/31/79 after lost lease
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☒ B. PILES	Unknown	
☐ C. DRUMS, ABOVE GROUND		
☒ D. TANK, ABOVE GROUND	Unknown	
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	~10	acres
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCINERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify) N/A

05 OTHER

☒ A. BUILDINGS ON SITE
1

06 AREA OF SITE

~33 (Acres)

07 COMMENTS

Two landfills were operated on site. An operating permit was granted on 8/5/74 and the landfills operated under this permit until the property lease was lost when a new owner purchased the property on 12/31/79.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

The landfills were not lined prior to disposal of the refuse. One of the landfills was not properly covered until two years after the landfill was closed.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS

Stained soil, indicative of leachate seeps were observed in eroded areas on site. The site is not completely fenced to limit access.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

EPE - Chicago, Region V

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: D980498117

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS: ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ■	A. ☐	B. ☐	C. ■	A. ~1/4 (mi)
NON-COMMUNITY	C. ☐	D. ■	D. ☐	E. ☐	F. ☐ Unknown	B. ~1/8 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

■ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER	03 DISTANCE TO NEAREST DRINKING WATER WELL	04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
~4960	~1500 ft (mi)	~15-50 (ft)	South-Southeast	~15-50 (ft)	NA (gpd)	☐ YES ■ NO

09 DESCRIPTION OF WELLS (Including useage, depth, and location relative to population and buildings)

See Section 5.2 of Narrative

10 RECHARGE AREA		11 DISCHARGE AREA	
■ YES ☐ NO	COMMENTS: Potential Recharge through Percolation	☐ YES ■ NO	COMMENTS: NA

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

■ A. RESERVOIR, RECREATION, DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Illinois & Michigan Canal	☐	~1 (mi)
Des Plaines River	☐	~1 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN			02 DISTANCE TO NEAREST POPULATION
ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	
A. ~700 NO. OF PERSONS	B. ~10,500 NO. OF PERSONS	C. ~48,500 NO. OF PERSONS	~1/8 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
~3,000	~50 ft (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

See Section 3-4 of Narrative

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE: IL | 02 SITE NUMBER: D980498117

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☒ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☒ C. RELATIVELY PERMEABLE ($10^{-3} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-3} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
5-90 (ft)	Unknown (ft)	NA	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
2 (in)	3.7 (in)	~15 %	S-SE	~3 %

09 FLOOD POTENTIAL

SITE IS IN Unknown YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. >3 (mi) OTHER: B. >3 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

>1 (mi)

ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO: COMMERCIAL/INDUSTRIAL; RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES; AGRICULTURAL LANDS: PRIME AG LAND; AG LAND

A. Adjacent (mi) B. ~1500 ft (mi) C. N/A (mi) D. Adjacent (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

See Appendix A

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E & E - Chicago, Region V

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	D980498117

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	3	See Subsection 3.4 in Narrative	on File
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	7	See Subsection 3.4 in Narrative	on File
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
OVA - 128	No Readings above zero obtained in breathing zone.
Rad - Mini	No Readings above background obtained
Hydrogen Cyanide Det.	No Readings above zero obtained
Oxygen Meter	All Readings obtained were within normal range.
Explosimeter	No Readings above zero obtained

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF Ecology and Environment, Inc., Chicago, Region V
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS Ecology and Environment, Inc. Chicago, IL - Region V

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Residential Well Samples were analyzed for temperature, pH, and Conductivity. See Table 4-2 for results

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E & E - Chicago, Region V

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION
01 STATE: IL
02 SITE NUMBER: D980498117

II. CURRENT OWNER(S)			PARENT COMPANY *(If applicable)*		
01 NAME Mr. and Mrs. W.B. Persico	02 D+B NUMBER		08 NAME N/A	09 D+B NUMBER	
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)* 602 Lavinia Lane	04 SIC CODE		10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	11 SIC CODE	
05 CITY Joliet	06 STATE IL	07 ZIP CODE 60436	12 CITY	13 STATE	14 ZIP CODE
01 NAME	02 D+B NUMBER		08 NAME	09 D+B NUMBER	
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE		10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME	02 D+B NUMBER		08 NAME	09 D+B NUMBER	
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE		10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME	02 D+B NUMBER		08 NAME	09 D+B NUMBER	
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE		10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) *(List most recent first)*			IV. REALTY OWNER(S) *(If applicable; list most recent first)*		
01 NAME (J.V. Development) Mr. Bill Streepy	02 D+B NUMBER		01 NAME N/A	02 D+B NUMBER	
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)* Unknown	04 SIC CODE		03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER		01 NAME	02 D+B NUMBER	
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE		03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER		01 NAME	02 D+B NUMBER	
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE		03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

E & E - Chicago, Region V

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	D980498117

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
N/A	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME	02 D+B NUMBER
M&W Disposal Company	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1999 Moen Ave.	

05 CITY	06 STATE	07 ZIP CODE
Rockdale	IL	60434

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
~5	Bill Streepy

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E&E- Chicago, Region V

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	D980498117

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
N/A	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
UnKnown.			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
M&W Disposal Company.			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E&E - Chicago, Region V

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	D980498117

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL N/A — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: D980498011?

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☒ S. CAPPING/COVERING | 02 DATE See Below | 03 AGENCY IEPA
04 DESCRIPTION M&W #2 was closed and capped in July 1976.
M&W #3 was closed in 1979, and capped and seeded in May 1982.

01 ☐ T. BULK TANKAGE REPAIRED N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ W. GAS CONTROL N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ X. FIRE CONTROL N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ Z. AREA EVACUATED N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES N/A | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E&E-Chicago, Region V

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	D980498117

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

See Subsection 2.3 of Narrative.

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E&E - Chicago, Region V

EPA FORM 2070-13 (7-81)

APPENDIX C

FIT SITE PHOTOGRAPHS

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M & W Landfill Company PAGE 1 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1615

DIRECTION OF PHOTOGRAPH: N

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable):

DESCRIPTION: Access Road and Gate. The Asphalt Paving Facility is in the Background.

DATE: 12/5/89

TIME: 1615

DIRECTION OF PHOTOGRAPH: W

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable):

DESCRIPTION: Dirt Access Road Leading to M&W #3. The Landfill is in the background.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M&W Landfill Company PAGE 2 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1435

DIRECTION OF PHOTOGRAPH: SE

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable):

DESCRIPTION: Piles of Asphalt, Rock, and Gravel located at base of M&W #3.

DATE: 12/5/89

TIME: 1435

DIRECTION OF PHOTOGRAPH: NE

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable):

DESCRIPTION: Asphalt Paving Equipment Located near Base of M&W #3.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M & W Landfill Company PAGE 3 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1510

DIRECTION OF PHOTOGRAPH: W

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable):

DESCRIPTION: View West of the Site. Photograph Taken from Top of M & W #3

DATE: 12/5/89

TIME: 1510

DIRECTION OF PHOTOGRAPH: S

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable):

DESCRIPTION: View South of the Site. Photograph Taken from Top of M & W #3.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M & W Landfill Company PAGE 4 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL033ISA

DATE: 12/5/89 TIME: 1505 DIRECTION OF PHOTOGRAPH: E PHOTOGRAPHED BY: J. Dickson

WEATHER CONDITIONS: Mostly Sunny, Mid 40's SAMPLE ID (if applicable): _____

DESCRIPTION: View of East of the Site. Photograph Taken from Top of M & W #3.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M & W Landfill Company PAGE 5 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1510

DIRECTION OF PHOTOGRAPH: N

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable):

DESCRIPTION: View north of site. Photograph Taken From Top of M & W #3

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M & W Landfill Company PAGE 6 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1505

DIRECTION OF PHOTOGRAPH: E

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable):

DESCRIPTION: Looking Toward M&W #2 From Top of M&W #3. The Large Piles in the background are in the Vicinity

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M&W Landfill Company PAGE 7 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL033ISA

DATE: 12/5/89

TIME: 1300

DIRECTION OF PHOTOGRAPH: NE

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S1

DESCRIPTION: Close Up View of Soil Sample S1 Sampling Location.

DATE: 12/5/89

TIME: 1300

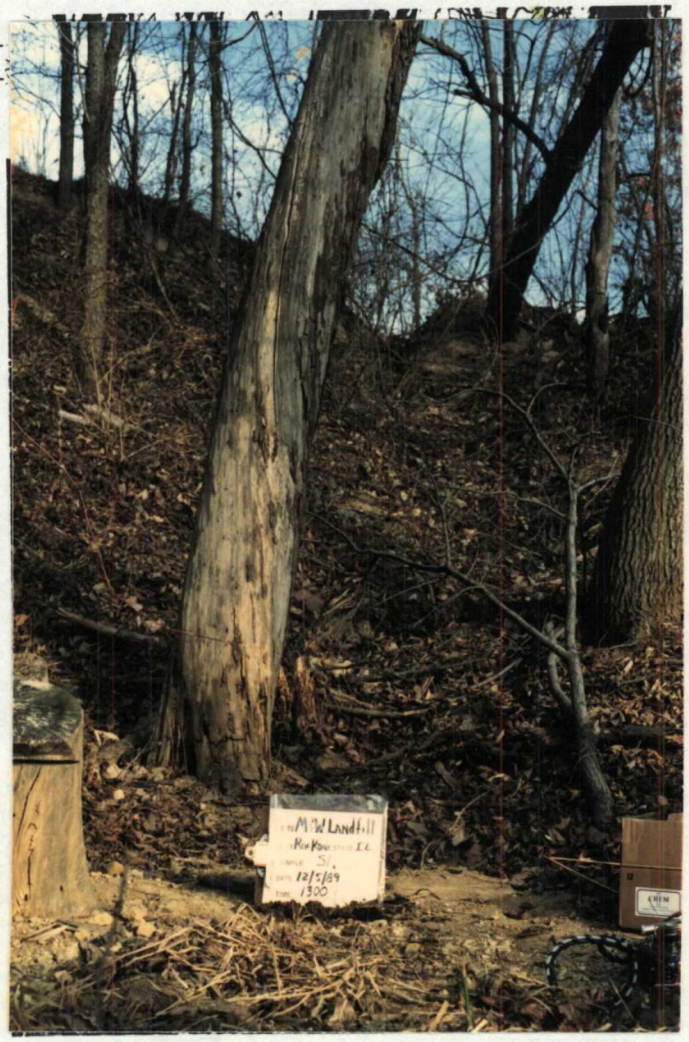
DIRECTION OF PHOTOGRAPH: NE

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S1

DESCRIPTION: Perspective View of Soil Sample S1 Sampling Location.



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M & W Landfill Company PAGE 8 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1245

DIRECTION OF PHOTOGRAPH: N

WEATHER CONDITIONS: Partly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S2

DESCRIPTION: Close Up View of Soil Sample S2 Sampling Location.

DATE: 12/5/89

TIME: 1245

DIRECTION OF PHOTOGRAPH: N

WEATHER CONDITIONS: Partly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S2

DESCRIPTION: Perspective View of Soil Sample S2 Sampling Location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M&W Landfill Company PAGE 9 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1225

DIRECTION OF PHOTOGRAPH: E

WEATHER CONDITIONS: Partly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S3

DESCRIPTION: Close up view of soil sample S3 Sampling Location.

DATE: 12/5/89

TIME: 1225

DIRECTION OF PHOTOGRAPH: E

WEATHER CONDITIONS: Partly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S3

DESCRIPTION: Perspective view of soil Sample S3 Sampling Location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M&W Landfill Company PAGE 10 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1355

DIRECTION OF PHOTOGRAPH: W

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S4

DESCRIPTION: Close Up View of Soil Sample S4 Sampling Location.

DATE: 12/5/89

TIME: 1355

DIRECTION OF PHOTOGRAPH: W

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S4

DESCRIPTION: Perspective View of Soil Sample S4 Sampling Location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M&W Landfill Company PAGE 11 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1340

DIRECTION OF PHOTOGRAPH: SW

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S5

DESCRIPTION: Close Up View of Soil Sample S5 Sampling Location.

DATE: 12/5/89

TIME: 1340

DIRECTION OF PHOTOGRAPH: SW

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S5

DESCRIPTION: Perspective View of Soil Sample S5 Sampling Location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M&W Landfill Company PAGE 12 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1445

DIRECTION OF PHOTOGRAPH: NE

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S6

DESCRIPTION: Close Up View of Soil Sample S6 Sampling Location.

DATE: 12/5/89

TIME: 1445

DIRECTION OF PHOTOGRAPH: NE

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S6

DESCRIPTION: Perspective View of Soil Sample S6 Sampling Location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M&W Landfill Company PAGE 13 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/5/89

TIME: 1410

DIRECTION OF PHOTOGRAPH: N

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S7

DESCRIPTION: Close Up View of Soil Sample S7 Sampling Location.

DATE: 12/5/89

TIME: 1410

DIRECTION OF PHOTOGRAPH: N

WEATHER CONDITIONS: Mostly Sunny, Mid 40's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): S7

DESCRIPTION: Perspective View of Soil Sample S7 Sampling Location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M&W Landfill Company PAGE 14 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/6/89

TIME: 1000

DIRECTION OF PHOTOGRAPH: E

WEATHER CONDITIONS: Cloudy, Windy, Low 30's

PHOTOGRAPHED BY: T. NehrKorn

SAMPLE ID (if applicable): RW1

Non-responsive

DESCRIPTION: Close Up View of Residential Well Sample RW1 Sampling Location.

DATE: 12/6/89

TIME: 1000

DIRECTION OF PHOTOGRAPH: N

WEATHER CONDITIONS: Cloudy, Windy, Low 30's

PHOTOGRAPHED BY: T. NehrKorn

SAMPLE ID (if applicable): RW1

Non-responsive

DESCRIPTION: Perspective View of Residential Well Sample RW1 Sampling Location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M & W Landfill Company PAGE 15 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/6/89

TIME: 1030

DIRECTION OF PHOTOGRAPH: S

WEATHER CONDITIONS: Cloudy, Windy, Low 30's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): RW2

DESCRIPTION: Close Up View of Residential Well Sample RW2 Sampling Location.

DATE: 12/6/89

TIME: 1030

DIRECTION OF PHOTOGRAPH: S

WEATHER CONDITIONS: Cloudy, Windy, Low 30's

PHOTOGRAPHED BY: J. Dickson

SAMPLE ID (if applicable): RW2

DESCRIPTION: Perspective View of Residential Well Sample RW 2 Sampling Location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: M & W Landfill Company PAGE 16 OF 16

U.S. EPA ID: ILD980498117 TDD: F05-8909-043 PAN: FIL0331SA

DATE: 12/6/89

TIME: 1110

DIRECTION OF PHOTOGRAPH: W

WEATHER CONDITIONS: Cloudy, Windy, Low 30's

PHOTOGRAPHED BY: T. NehrKorn

SAMPLE ID (if applicable): RW3

Non-responsive

DESCRIPTION: Close Up View of Residential Well Sample RW3 Sampling Location.

DATE: 12/6/89

TIME: 1110

DIRECTION OF PHOTOGRAPH: W

WEATHER CONDITIONS: Cloudy, Windy Low 30's

PHOTOGRAPHED BY: T. NehrKorn

SAMPLE ID (if applicable): RW3

Non-responsive

DESCRIPTION: Perspective View of Residential Well Sample RW3 Sampling Location.

APPENDIX D

U.S. EPA TARGET COMPOUND LIST AND TARGET ANALYTE LIST QUANTITATION/DETECTION LIMITS

ADDENDUM A

ROUTINE ANALYTICAL SERVICES
CONTRACT REQUIRED DETECTION AND QUANTITATION LIMITS

Contract Laboratory Program
Target Compound List
Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Chloromethane	74-87-3	10 ug/L	10 ug/Kg
Bromomethane	74-83-9	10	10
Vinyl chloride	75-01-4	10	10
Chloroethane	75-00-3	10	10
Methylene chloride	75-09-2	5	5
Acetone	67-64-1	10	5
Carbon disulfide	75-15-0	5	5
1,1-dichloroethene	75-35-4	5	5
1,1-dichloroethane	75-34-3	5	5
1,2-dichloroethene (total)	540-59-0	5	5
Chloroform	67-66-3	5	5
1,2-dichloroethane	107-06-2	5	5
2-butanone (MEK)	78-93-3	10	10
1,1,1-trichloroethane	71-55-6	5	5
Carbon tetrachloride	56-23-5	5	5
Vinyl acetate	108-05-4	10	10
Bromodichloromethane	75-27-4	5	5
1,2-dichloropropane	78-87-5	5	5
cis-1,3-dichloropropene	10061-01-5	5	5
Trichloroethene	79-01-6	5	5
Dibromochloromethane	124-48-1	5	5
1,1,2-trichloroethane	79-00-5	5	5
Benzene	71-43-2	5	5
Trans-1,3-dichloropropene	10061-02-6	5	5
Bromoform	75-25-2	5	5
4-Methyl-2-pentanone	108-10-1	10	10
2-Hexanone	591-78-6	10	10
Tetrachloroethene	127-18-4	5	5
Tolene	108-88-3	5	5
1,1,2,2-tetrachloroethane	79-34-5	5	5
Chlorobenzene	108-90-7	5	5
Ethyl benzene	100-41-4	5	5
Styrene	100-42-5	5	5
Xylenes (total)	1330-20-7	5	5

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Phenol	108-95-2	10 ug/L	330 ug/Kg
bis(2-Chloroethyl) ether	111-44-4	10	330
2-Chlorophenol	95-57-8	10	330
1,3-Dichlorobenzene	541-73-1	10	330
1,4-Dichlorobenzene	106-46-7	10	330
Benzyl Alcohol	100-51-6	10	330
1,2-Dichlorobenzene	95-50-1	10	330
2-Methylphenol	95-48-7	10	330
bis(2-Chloroisopropyl) ether	108-60-1	10	330
4-Methylphenol	106-44-5	10	330
N-Nitroso-di-n-dipropylamine	621-64-7	10	330
Hexachloroethane	67-72-1	10	330
Nitrobenzene	98-95-3	10	330
Isophorone	78-59-1	10	330
2-Nitrophenol	88-75-5	10	330
2,4-Dimethylphenol	105-67-9	10	330
Benzoic Acid	65-85-0	50	1600
bis(2-Chloroethoxy) methane	111-91-1	10	330
2,4-Dichlorophenol	120-83-2	10	330
1,2,4-Trichlorobenzene	120-82-1	10	330
Naphthalene	91-20-3	10	330
4-Chloroaniline	106-47-8	10	330
Hexachlorobutadiene	87-68-3	10	300
4-Chloro-3-methylphenol	59-50-7	10	330
2-Methylnaphthalene	91-57-6	10	330
Hexachlorocyclopentadiene	77-47-4	10	330
2,4,6-Trichlorophenol	88-06-2	10	330
2,4,5-Trichlorophenol	95-95-4	50	1600
2-Chloronaphthalene	91-58-7	10	330
2-Nitroaniline	88-74-4	50	1600
Dimethylphthalate	131-11-3	10	330
Acenaphthylene	208-96-8	10	330
2,6-Dinitrotoluene	606-20-2	10	330
3-Nitroaniline	99-09-2	50	1600
Acenaphthene	83-32-9	10	330
2,4-Dinitrophenol	51-28-5	50	1600
4-Nitrophenol	100-02-7	50	1600
Dibenzofuran	132-64-9	10	330
2,4-Dinitrotoluene	121-14-2	10	330
Diethylphthalate	84-66-2	10	330
4-Chlorophenyl-phenyl ether	7005-72-3	10	330

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SLUDGE SEDIMENT
Fluorene	86-73-7	10 ug/L	330 ug/Kg
4-Nitroaniline	100-01-6	50	1600
4,6-Dinitro-2-methylphenol	534-52-1	50	1600
N-nitrosodiphenylamine	86-30-6	10	330
4-Bromophenyl-phenylether	101-55-3	10	330
Hexachlorobenzene	118-74-1	10	330
Pentachlorophenol	87-86-5	50	1600
Phenanthrene	85-01-8	10	330
Anthracene	120-12-7	10	330
Di-n-butylphthalate	84-74-2	10	330
Fluoranthene	206-44-0	10	330
Pyrene	129-00-0	10	330
Butylbenzylphthalate	85-68-7	10	330
3,3'-Dichlorobenzidine	91-94-1	20	660
Benzo(a)anthracene	56-55-3	10	330
Chrysene	218-01-9	10	330
bis(2-Ethylhexyl)phthalate	117-81-7	10	330
Di-n-octylphthalate	117-84-0	10	330
Benzo(b)fluoranthene	205-99-2	10	330
Benzo(k)fluoranthene	207-08-9	10	330
Benzo(a)pyrene	50-32-8	10	330
Indeno(1,2,3-cd)pyrene	193-39-5	10	330
Dibenz(a,h)anthracene	53-70-3	10	330
Benzo(g,h,i)perylene	191-24-2	10	330

Table A
Contract Laboratory Program
Target Compound List
Pesticide and PCB Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
alpha-BHC	319-84-6	0.05 ug/L	8 ug/Kg
beta-BHC	319-85-7	0.05	8
delta-BHC	319-86-8	0.05	8
gamma-BHC (Lindane)	58-89-9	0.05	8
Heptachlor	76-44-8	0.05	8
Aldrin	309-00-2	0.05	8
Heptachlor epoxide	1024-57-3	0.05	8
Endosulfan I	959-98-8	0.05	8
Dieldrin	60-57-1	0.10	16
4,4'-DDE	72-55-9	0.10	16
Endrin	72-20-8	0.10	16
Endosulfan II	33213-65-9	0.10	16
4,4'-DDD	72-54-8	0.10	16
Endosulfan sulfate	1031-07-8	0.10	16
4,4'-DDT	50-29-3	0.10	16
Methoxychlor (Mariate)	72-43-5	0.5	80
Endrin ketone	53494-70-5	0.10	16
alpha-Chlordane	5103-71-9	0.5	80
gamma-chlordane	5103-74-2	0.5	80
Toxaphene	8001-35-2	1.0	160
AROCLOR-1016	12674-11-2	0.5	80
AROCLOR-1221	11104-28-2	0.5	80
AROCLOR-1232	11141-16-5	0.5	80
AROCLOR-1242	53469-21-9	0.5	80
AROCLOR-1248	12672-29-6	0.5	80
AROCLOR-1254	11097-69-1	1.0	160
AROCLOR-1260	11096-82-5	1.0	160

Table A (Cont.)

CONTRACT LABORATORY PROGRAM

TARGET ANALYTE LIST (TAL)

INORGANIC DETECTION LIMITS

Compound	Procedure	Detection Limits Water (µg/L)	Detection Limits Soil Sediment Sludge (mg/kg)
aluminum	ICP	200	40
antimony	furnace	60	2.4
arsenic	furnace	10	2
barium	ICP	200	40
beryllium	ICP	5	1
cadmium	ICP	5	1
calcium	ICP	5,000	1,000
chromium	ICP	10	2
cobalt	ICP	50	10
copper	ICP	25	5
iron	ICP	100	20
lead	furnace	5	1
magnesium	ICP	5,000	1,000
manganese	ICP	15	3
mercury	cold vapor	0.2	0.008
nickel	ICP	40	8
potassium	ICP	5,000	1,000
selenium	furnace	5	1
silver	ICP	10	2
sodium	ICP	5,000	1,000
thallium	furnace	10	2
tin	ICP	40	8
vanadium	ICP	50	10
zinc	ICP	20	4
cyanide	color	10	2

3767:1

ADDENDUM C

SPECIAL ANALYTICAL SERVICES
DETECTION LIMITS

Drinking Water Samples

TABLE C
SPECIAL ANALYTICAL SERVICES DRINKING WATER
VOLATILE QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT IN REAGENT WATER
Benzene	71-43-2	1.5 ug/L
Bromodichloromethane	75-27-4	1.5
Bromoform	75-25-2	1.5
Bromomethane	74-83-9	1.5
Carbon tetrachloride	56-23-5	1.5
Chlorobenzene	108-90-7	1.5
Chloroethane	75-00-3	1.5
2-Chloroethyl vinyl ether	110-75-8	1.5
Chloroform	67-66-3	1.5
Chloromethane	74-87-3	1.5
Dibromochloromethane	124-48-1	1.5
1,1-Dichloroethane	75-34-3	1.5
1,2-Dichloroethane	107-06-2	1.5
1,1-Dichloroethene	75-35-4	1.5
Total-1,2-Dichloroethene	540-59-0	1.5
1,2-Dichloropropane	78-87-5	1.5
cis-1,3-Dichloropropene	10061-01-5	2
trans-1,3-Dichlopropropene	10061-02-6	1
Ethyl benzene	100-41-4	1.5
Methylene chloride *	75-09-2	1
1,1,2,2-Tetrachloroethane	79-34-5	1.5
Tetrachloroethene	127-18-4	1.5
Toluene *	108-88-3	1.5
1,1,1-Trichloroethane	71-55-6	1.5
1,1,2-Trichloroethane	79-00-5	1.5
Trichloroethene	79-01-6	1.5
Vinyl chloride	75-01-4	1.5
Acrolein	107-02-8	25
Acetone *	67-64-1	5
Acrylonitrile	107-13-1	25
Carbon disulfide	75-15-0	3
2-Butanone	78-93-3	5
Vinyl acetate	108-05-4	5
4-Methyl-2-pentanone	108-10-1	1.5
2-Hexanone	519-78-6	5
Styrene	100-42-5	1
Xylene (total)	1330-02-7	1.5

* Common laboratory solvents.
Blank limit is 5x method detection limit.
( ) Values in parentheses are estimates.
actual values are being determined at this time.

TABLE C (cont.)
SAS DRINKING WATER
SEMIVOLATILES QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT
Aniline	62-53-3	1.5 ug/l
Bis(2-chloroethyl)ether	111-44-4	1.5
Phenol	108-95-2	2
2-Chlorophenol	95-57-8	2
1,3-Dichlorobenzene	541-73-1	2
1,4-Dichlorobenzene	106-46-7	2
1,2-Dichlorobenzene	95-50-1	2.5
Benzyl alçohol	100-51-6	2
Bis(2-chloroisopropyl)ether	39638-32-9	2.5
2-Methylphenol	95-48-7	1
Hexachloroethane	67-72-1	2
n-Nitrosodipropylamine	621-64-7	1.5
Nitrobenzene	98-95-3	2.5
4-Methylphenol	106-44-5	1
Isophorone	78-59-1	2.5
2-Nitrophenol	88-75-5	2
2,4-Dimethylphenol	105-67-9	2
Bis(2-Chloroethoxy)methane	111-91-1	2.5
2,4-Dichlorophenol	120-83-2	2
1,2,4-Trichlorobenzene	120-82-1	2
Naphthalene	91-20-3	2
4-Chloroaniline	106-47-8	2
Hexachlorobutadiene	87-68-3	2.5
Benzoic Acid	65-85-0	20
2-Methylnapthalene	91-57-6	2
4-Chloro-3-methylphenol	59-50-7	1.5
Hexachlorocyclopentadiene	77-47-4	2
2,4,6-Trichlorophenol	88-06-2	1.5
2,4,5-Trichlorophenol	95-95-4	1.5
2-Chloronapthalene	91-58-7	1.5
Acenapthylhene	208-96-8	1.5
Dimethyl phthalate	131-11-3	1.5
2,6-Dinitrotoluene	606-20-2	1
Acenaphthene	83-32-9	1.5
3-Nitroaniline	99-09-2	2.5
Dibenzofuran	132-64-9	1
2,4-Dinitrophenol	51-28-5	(15)
2,4-Dinitrotoluene	121-14-2	1

TABLE C (Cont.)
SAS DRINKING WATER
SEMIVOLATILE QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT
Fluorene	86-73-7	1 ug/L
4-Nitrophenol	100-02-7	1.5
4-Chlorophenyl phenyl ether	7005-72-3	1
Diethyl phthalate	84-66-2	1
4,6-Dinitro-2-methylphenol	534-52-1	(15)
1,2-Diphenylhydrazine	122-66-7	1
n-Nitrosodiphenylamine *	86-30-6	
Diphenylamine *	122-39-4	1.5
4-Nitroaniline	100-01-6	3
4-Bromophenyl-phenylether	101-55-3	1.5
Hexachlorobenzene	118-74-1	1.5
Pentachlorophenol	87-86-5	2
Phenanthrene	85-01-8	1
Anthracene	120-12-7	2.5
di-n-Butyl phthalate	84-74-2	2
Fluoranthene	206-44-0	1.5
Pyrene	129-00-0	1.5
Butyl benzyl phthalate	85-68-7	3.5
Chrysene **	218-01-9	
Benzo(A)Anthracene **	56-55-3	1.5
bis(2-ethylhexyl)phthalate	117-81-7	1
di-n-Octyl phthalate	117-84-0	1.5
Benzo(b)fluoranthene ***	205-99-2	
Benzo(k)fluoranthene ***	207-08-9	1.5
Benzo(a)pyrene	50-32-8	2
Indeno(1,2,3-cd)pyrene	193-39-5	3.5
Dibenzo(a,h)anthracene	53-70-3	2.5
Benzo(g,h,i)perylene	191-24-2	4
2-Nitroaniline	88-74-4	1

* These two parameters are reported as a total.
** These two parameters are reported as a total.
*** These two parameters are reported as a total.

( ) Values in parentheses are estimates.
The actual values are being determined at this time.

Note: Limits are for reagent water.

TABLE C (Cont.)
SAS DRINKING WATER
PESTICIDE AND PCB QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT
Aldrin	309-00-2	0.005 ug/L
alpha BHC	319-84-6	0.010
beta BHC	319-85-7	0.005
delta BHC	319-86-8	0.005
gamma BHC (Lindane)	58-89-9	0.005
alpha-Chlordane	5103-71-9	0.020
gamma-Chlordane	5103-74-2	0.020
4,4'-DDD	72-54-8	0.020
4,4'-DDE	72-55-9	0.005
4,4'-DDT	50-29-3	0.020
Dieldrin	60-57-1	0.010
Endosulfan I	959-98-8	0.010
Endosulfan II	33213-65-9	0.010
Endosulfan sulfate	1031-07-8	0.10
Endrin	72-20-8	0.010
Endrin Aldehyde	7421-93-4	(0.030)
Endrin Ketone	53494-70-5	0.030
Heptachlor	76-44-8	0.030
Heptachlor Epoxide	1024-57-3	0.005
4,4'-Methoxychlor	72-43-5	0.020
Toxaphene	8001-35-2	0.25
Aroclor-1016	12674-11-2	0.10
Aroclor-1221	11104-28-2	0.10
Aroclor-1232	11141-16-5	0.10
Aroclor-1242	53469-21-9	0.10
Aroclor-1248	12672-29-6	0.10
Aroclor-1254	11097-69-1	0.10
Aroclor-1260	11096-82-5	0.10

( ) Values in parentheses are estimates.
Actual values are being determined at this time.

Note: Limits are for reagent water.

TABLE C (Cont.)
SAS DRINKING WATER
INORGANIC DETECTION LIMITS

PARAMETER	PROCEDURE	DETECTION LIMIT
Aluminum	ICP	100
Antimony	GFAA	5
Arsenic	GFAA	5
Barium	ICP	50
Beryllium	ICP	5
Cadmium	GFAA	0.5
Calcium	ICP	1000
Chromium	ICP	10
Cobalt	ICP	10
Copper	ICP	10
Iron	ICP	100
Lead	GFAA	2
Magnesium	ICP	1000
Manganese	ICP	10
Mercury	Cold Vapor	0.2
Nickel	ICP	20
Potassium	ICP	2000
Selenium	GFAA	2
Silver	ICP	5
Sodium	ICP	1000
Thallium	GFAA	2
Tin	ICP	40
Vanadium	ICP	10
Zinc	ICP	20
Cyanide	Colorimetric	10

Note: The above list may or may not contain compounds that are routinely analyzed at CRL for low level detection limits for drinking water.

See inorganic Routine Analytical Services (RAS) for related CAS #.

APPENDIX E

WELL LOGS OF THE AREA OF THE SITE

PEW
G&H
VG

53

Property owner [redacted] Well No. ______

Drilled by T. H. SMITH. Year 1946

Formations passed through	Thickness	Depth of Bottom
soil	2	2
yellow clay	8	10
clay & gravel	37	47
sand & gravel	36	83
limestone	53	136
shale	4	140
limestone	95	235

(Continue on back if necessary)

Finished in limestone at 95 to 235 ft.

Cased with 8 inch blk from 0 to 85 ft.

and ______ inch ______ from ______ to ______ ft.

Size hole below casing 8 inch. Static level from surf. 55 ft.

Tested capacity 130 gal. per min. Temperature ______ °F.

Water lowered to ______ ft. ______ in. in ______ hrs. ______ min.

Length of test ______ hrs. ______ min. Screen ______

Slot ______ Diam. ______ Length ______ Bottom set at ______ ft.

S.S. 4934

(Show location in Section Plat)

Township name Joliet Elev. 636 TM Sec. [redacted]

Description of location [redacted] Twp. [redacted]

Rge. [redacted]

Signed T. H. Smith County Will

Copy for Illinois State Water Survey Index: 18-35N-10E

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

WELL LOG # 2

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 5 in. Depth 140 ft.
   Curb material____. Buried Slab: Yes____ No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled____. Finished in Drift____. In Rock____.
   Tubular____. Gravel Packed____
   d. Grout:

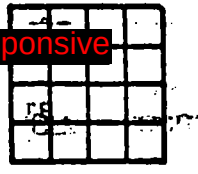
(KIND)	FROM (Ft.)	TO (Ft.)
cuttings	0	40

2. Distance to Nearest:
   Building 25 Ft. — Seepage Tile Field 75 ft.
   Cess Pool____ — Sewer (non-Clearon)____ ft.
   Privy____ — Sewer (Castiron)____ ft.
   Septic Tank____ — Barnyard____
   Leaching Pit____ — Manure Pile____
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed 5-7-81
5. Permanent Pump Installed? Yes X Date 5-13-81 No____
   Manufacturer Gould Type Subm Location in well
   Capacity 10 gpm. Depth of Setting 60 Ft.
6. Well Top Sealed? Yes X No____ Type Williams Cap
7. Pitless Adapter Installed? Yes X No____
   Manufacturer Williams Model Number B50AC
   How attached to casing? locknut
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes X No____
10. Pressure Tank Size – gal. Type____
    Location____
11. Water Sample Submitted? Yes____ No X

REMARKS: Owner instructed to take sample.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Joliet Park District Well No.____
    Address [redacted] Joliet, Il
    Driller Will-DuPage Drilling License No. 102-000445
11. Permit No. 99543 Date 5-6-81
12. Water from Limestone Formation 13. County Will
    at depth____ to____ ft. Sec. [redacted]
14. Screen: Diam.____in. Twp. [redacted]
    Length:____ft. Slot____ Rge.____
    Elev.____



15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black Steel 14.98	0	40

SHOW LOCATION IN SECTION PLAT
NE SW NW

16. Size Hole below casing: 5 In.
17. Static level 15 ft. below casing top which is 1[illegible] ft. above ground level. Pumping level 15 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay & Gravel	40	40
Limestone	100	140

(CONTINUED ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 5-18-81

IDPH 4.065
1/74 – KNR-1

White Copy -- Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

FILL IN ALL PERTINENT INFORMATION REQUES. AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

WELL LOG # 3

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 6 in. Depth 300 ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift____. In Rock X.
   Tubular____. Gravel Packed____.
   d. Grout:

KIND	FROM (Ft.)	TO (Ft.)
Cuttings		

2. Distance to Nearest:
   Building____Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank____ Barnyard____
   Leaching Pit____ Manure Pile____
3. Is water from this well to be used for human consumption?
   Yes X No____
4. Date well completed 4-27-71
5. Permanent Pump Installed? Yes X No____
   Manufacturer Barnes Type Syston
   Capacity____gpm. Depth of setting 90 ft.
6. Well Top Sealed? Yes X No____
7. Pitless Adaptor Installed? Yes X No____
8. Well Disinfected? Yes X No____
9. Water Sample Submitted? Yes____No X

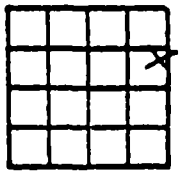
REMARKS:

Owner instructed

IDPH 4.065
10/68

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Crowther Bodies Well No.____
    Address [redacted]
    Driller Albert Knieblein License No. 92-578
11. Permit No. 12367 Date 4-22-71
12. Water from Limestone Formation 13. County Will
    at depth____to____ft. Sec. [redacted]
14. Screen: Diam.____in. Twp. [redacted]
    Length:____ft. Slot____ Rge. [redacted]
    Elev.____



SHOW LOCATION IN SECTION PLAT
SW/C NE SE NE

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6	Black 19#	0	40

16. Size Hole below casing: 6 in.
17. Static level 60 ft. below casing top which is 1 ft. above ground level. Pumping level 90 ft. when pumping at 20 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Overburden	0	40
Rock formation	40	300

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Knieblein DATE 6-8-71

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTION TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

WELL LOG # 4

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ____. Hole Diam. 6 in. Depth 200 ft.
   Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled X. Finished in Drift ____. In Rock X.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Cement (Grout)	Pressured	

2. Distance to Nearest:
   Building ____ Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast Iron) ____
   Privy ____ Sewer (Cast Iron) ____
   Septic Tank ____ Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Well furnishes water for human consumption? Yes X No ____
4. Date well completed 2/1/79
5. Permanent Pump Installed? Yes ____ Date ____ No ____
   Manufacturer ____ Type ____ Location ____
   Capacity ____ gpm. Depth of Setting ____ Ft.
6. Well Top Sealed? Yes X No ____ Type tap
7. Pitless Adapter Installed? Yes ____ No ____
   Manufacturer ____ Model Number ____
   How attached to casing? ____
8. Well Disinfected? Yes X No ____
9. Pump and Equipment Disinfected? Yes ____ No ____
10. Pressure Tank Size ____ gal. Type ____
    Location ____
11. Water Sample Submitted? Yes ____ No ____

REMARKS:
K & K Well Drilling did not install pump installation.

IDPH 4.065
1/74 – KNB-1

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Crown-Iron Corp. Well No. ____
    Address [redacted]
    Driller James Knudsen License No. 102-27
11. Permit No. 83232 Date 1/17/79
12. Water from Shale County Will
    Formation
    at depth ____ to 200 ft.
13. Sec. [redacted] Twp. [redacted] Rge. [redacted] Elev. ____
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____

SHOW LOCATION IN SECTION PLAT

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	Black 19#	0	42
Pressured	Cement - Grout		

16. Size Hole below casing: 6 in.
17. Static level ____ ft. below casing top which is ____ ft. above ground level. Pumping level ____ ft. when pumping at ____ gpm for ____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	0	3
Rock	3	90
Shale	90	108
Rock	108	138
Rock & Shale	138	200

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED James Knudsen DATE 2/20/79

White Copy - Ill. Dept. Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

WELL LOG # 5

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____ Bored ____ Hole Diam. *5* in. Depth *160* ft.
      Curb material ____ Buried Slab: Yes ____ No ____
   b. Driven ____ Drive Pipe Diam. *5* in. Depth *42* ft.
   c. Drilled *✓* Finished in Drift ____ In Rock *✓*
      Tubular ____ Gravel Packed ____
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building *22* Ft. Seepage Tile Field *75*
   Cess Pool ____ Sewer (non Cast iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank *50* Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Is water from this well to be used for human consumption?
   Yes *✓* No ____
4. Date well completed *11-1-72*
5. Permanent Pump Installed? Yes *✓* No ____
   Manufacturer *Webtrol* Type *Sub.*
   Capacity *600* gpm. Depth of setting *160* ft.
6. Well Top Sealed? Yes *✓* No ____
7. Pitless Adaptor Installed? Yes *✓* No ____
8. Well Disinfected? Yes *✓* No ____
9. Water Sample Submitted? Yes ____ No *—*

REMARKS:

IDPH 4.065
10/68

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner *McReilly* Well No. *196*
    Address Non-responsive [redacted]
    Driller *Omalour* License No. *72-72*
11. Permit No. *20735* Date *10-31-72*
12. Water from *Limestone* (Formation) 13. County *Will* Non-responsive [redacted]
    at depth *0* to *42* ft.
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____
    Elev. ____
15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black 15#	0	42

SHOW LOCATION IN SECTION - PLAT

Lot 1 Block 21 C.E. Robinson's Addition Rockdale Sub. NE

16. Size Hole below casing: ____ in.
17. Static level ____ ft. below casing top which is ____ ft. above ground level. Pumping level ____ ft. when pumping at ____ gpm for ____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay & Gravel	0	42
Limestone	42	160

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED *[illegible signature]* DATE *11-11-72*

[illegible]